

**Rejection of claim 15**

The Examiner has rejected claim 15 under 35 U.S.C. § 112, second paragraph, asserting that claim 15 is vague, indefinite and confusing in the use of the recitations “a volume of axenic culture medium,” “harvesting . . . at an extraction rate of about 0.1 to about 12 volumes per day,” “about an equivalent amount,” “a biogenous substance from ciliates” and “biogenous substance.”

*“a volume of axenic culture medium”*

The Examiner has rejected claim 15 under 35 U.S.C. § 112, asserting that it is unclear whether the recitation “a volume of axenic culture medium” refers to an aqueous medium. Claim 15 has been amended to recite a volume of axenic aqueous culture medium. Applicant respectfully submits that the rejection should be withdrawn.

*“harvesting . . . at an extraction rate of about 0.1 to about 12 volumes per day”*

The Examiner has rejected claim 15 under 35 U.S.C. § 112, asserting that the phrase “harvesting . . . at an extraction rate of about 0.1 to about 12 volumes per day” is vague indefinite and confusing in that the nature of the “volumes” is uncertain. Applicants have amended claim 15 and respectfully submit that claim 15, as amended, clarifies that an extraction rate of about 1/10 to about 12 times the volume of the continuous fermentation culture is intended. Applicant respectfully submits that the rejection should be withdrawn.

*“about an equivalent amount”*

The Examiner has rejected claim 15 under 35 U.S.C. § 112, asserting that the recitation “about an equivalent amount” is vague and confusing. Applicants have amended claim 15 and removed the language objected to by the Examiner. As amended, claim 15 recites “replacing the harvested culture medium . . . so as to maintain a continuous fermentation.” Applicant respectfully submits that the rejection should be withdrawn.

*"a biogenous substance from ciliates"*

The Examiner has also rejected claim 15 under 35 U.S.C. § 112, asserting that the claim is vague, indefinite and confusing in that the preamble and the harvesting step are inconsistent. Applicants respectfully disagree, but submit that the rejection is moot in light of the current amendment to claim 15, wherein the preamble has been amended to recite a ciliate biomass. Applicant respectfully submits that the rejection should be withdrawn.

*"biogenous substance"*

The Examiner has rejected claim 15 under 35 U.S.C. § 112, asserting that the phrase "biogenous substance" renders the claim confusing. Applicants respectfully disagree, noting that the specification, at page 4, paragraphs 2 and 4, provides numerous examples of biogenous substances that clarify any confusion associated with the term. Regardless, Applicant respectfully submits that the rejection is moot in light of the current amendment to claim 15. Applicant respectfully submits that the rejection should be withdrawn.

**Rejection of claim 26**

The Examiner has rejected claim 26 under 35 U.S.C. § 112, asserting that the phrase "the cells contained in the harvested biomass are separated . . ." is vague and confusing. Applicants respectfully submit that the current amendment to claim 26 clarifies that the ciliate biomass is separated off from the harvested culture medium. Applicant respectfully submits that the rejection may be withdrawn.

**Rejection of claim 23**

The Examiner has rejected claim 23 under 35 U.S.C. § 112, asserting that the phrase "preferably" renders the claim indefinite. Applicants respectfully submit that the rejection is moot in light of the current, as amended claim 23 does not contain the phrase objected to by the Examiner. Applicant respectfully submits that the rejection should be withdrawn.

### **Rejection of claim 27**

The Examiner has rejected claim 27 under 35 U.S.C. § 112, asserting that the phrase “one or more substance” is grammatically incorrect and that the term “selected from” is missing before “from the group consisting of.” Applicant respectfully submits that the current amendment to claim 27 addresses the Examiner’s concerns in this regard. The rejection should be withdrawn.

### ***Objections under 37 C.F.R. § 1.75(c)***

#### **Objection to claim 25**

The Examiner has objected go claim 25 under 37 C.F.R. § 1.75(c), asserting that claim 25 is in improper form for a multiple dependant claim. Applicants have amended claim 25 to depend on claims in the alternative, in accordance with the formats discussed in MPEP § 608.01(n). Applicant respectfully submits that the objection may be withdrawn.

Applicant believes that each stated ground for rejection has been addressed by the above amendments and remarks and that the Application is in condition for allowance. Applicant respectfully requests that this Amendment under 37C.F.R. §1.116 be entered by the Examiner, and submits that the proposed amendments of claims 15, 16, 23 and 25-27 raise no new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicant respectfully points out that the final action by the Examiner presented some new arguments as to the application of the art against Applicant’s invention. It is respectfully submitted that the entering of the Amendment would allow the Applicant to reply to the final rejections and place the application in condition for allowance.

Applicant therefore requests the entry of this Amendment, the Examiner's reconsideration

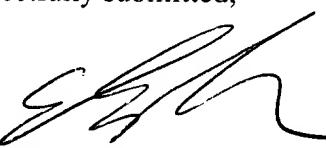
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of the application, and the timely allowance of the pending claims. The Examiner is invited to contact the undersigned at (302) 888-6427 to clarify any remaining issues that may be present.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 03-2775. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

Date: September 13, 2002

By: 

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**EXHIBIT A**

Please amend claims 15, 16, 23 and 25-27 to read as follows:

15. [Amended once] A continuous fermentation process for producing a [biogenous substance from ciliates, comprising] ciliate biomass:
  - (i) continuously cultivating ciliates in a volume of complex axenic aqueous culture medium to produce a biomass of ciliate cells [containing a biogenous substance, said biogenous substance being the biomass itself or a substance extracted from the biomass];
  - (ii) harvesting said culture medium containing the produced biomass at an extraction rate of about 0.1 to about 12 times said volume [volumes] per day; and
  - (iii) replacing the harvested culture medium containing the biomass with [about an equivalent amount of] complex axenic aqueous culture medium, so as to maintain a continuous fermentation.
16. [Amended once] The fermentation process as claimed in claim 15, wherein the ciliates belong to one of the taxonomic groups Holotricha, Peritricha, Spirotricha and Suctoria, including the orders Tetrahymena, Paramecium, Colpoda, Glaucoma, Parauronema, Engelmanniella, Stylonichia, Euplotes and Colpidium, which include, in addition to the wild-type strains, also mutants and/or recombinants of these strains.
23. [Amended once] The fermentation process as claimed in claim 15, wherein the medium contains at least one phosphate source[, preferably] selected from the group consisting of potassium phosphate [and/or] and potassium dihydrogen phosphate.
25. [Amended once] The fermentation process as claimed in any one of claims [1 to 10] 15-24, wherein the medium contains killed biomass of feed organisms for ciliates.
26. [Amended once] The fermentation process as claimed in claim 15, wherein the [cells contained in the harvested] ciliate biomass [are] is separated off from the harvested culture medium by centrifugation and/or tangential filtration and/or microfiltration and/or sedimentation and/or flotation.
27. [Amended once] The fermentation process as claimed in claim 15, wherein the ciliate

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biomass comprises a biogenous substance [is one or more substance] selected from the group consisting of: peptides, proteins, enzymes, fatty acids, lipids, polysaccharides, nucleic acids, secondary metabolites and polymers.